

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-60. (canceled)

61. (new) A device for assisting an airplane intercept a flight path, the device comprising:

a calculator that calculates a ground speed vector of the airplane;

a display screen; and

a symbol generator connected to said calculator and that generates symbols that are displayed on said display screen, the generated symbols including,

the flight path that is to be intercepted,

a first symbol indicating a position of the airplane relative to the flight path,

a first indicator that is attached to said first symbol and that is a straight line with an angular orientation corresponding to a direction of the ground speed vector and with a length that varies and corresponds to a magnitude of the ground speed vector when the magnitude exceeds a predetermined value and that is constant and proportional to the predetermined value when the magnitude is less than or equal to the predetermined value,

a second indicator that is attached to said first indicator and that is a straight line whose direction indicates an initial part of an approach path for intercepting the flight path and whose length adjusts as the position of the airplane changes relative to the flight path, and

a third indicator that extends tangentially from said second indicator and that is connected tangentially to the flight path, said third indicator being a curved line indicating a final part of the approach path for intercepting the flight path.

62. (new) The device of claim 61, wherein said second indicator is displayed on said display screen only when the direction of the ground speed vector intercepts the flight path and only when the airplane is less than a predetermined distance from the flight path.

63. (new) The device of claim 61, wherein said third indicator is displayed on said display screen only when the direction of the ground speed vector intercepts the flight path and only when the airplane is less than a predetermined distance from the flight path.

64. (new) The device of claim 61, wherein a curvature of said third indicator depends on at least one of an airspeed of the airplane, a turning capability of the airplane, and wind speed and direction.

65. (new) The device of claim 64, wherein said third indicator is displayed on said display screen only when the curvature of said third indicator is achievable by the airplane.

66. (new) The device of claim 61, further comprising an obstacle detector and wherein said symbol generator further generates a second symbol indicating a position of an obstacle detected by said obstacle detector.

67. (new) The device of claim 61, wherein the device is arranged and adapted to transmit flight information for intercepting the flight path to an autopilot that controls movement of the airplane.

68. (new) The device of claim 61, wherein the device further assists the airplane to follow a flight path, and wherein said calculator calculates a lateral deviation of the airplane from the flight path to be followed and tolerated lateral margins on both sides of the flight path to be followed, and said symbol generator generates the further symbols including,

a straight line segment of the flight path to be followed, said first symbol indicating a lateral deviation of the airplane from the flight path to be followed by a relative position of said first symbol to said straight line segment,

a lateral deviation scale, and

an excessive lateral deviation marker that appears when the airplane is approaching one of said tolerated lateral margins.

69. (new) The device of claim 68, wherein a distance indicated by said lateral deviation scale adjusts automatically as a flight corridor width defined by said tolerated lateral margins changes.

70. (new) The device of claim 68, wherein said symbol generator also generates slanted lines indicating a change in a width of a flight corridor defined by said tolerated lateral margins.

71. (new) The device of claim 68, wherein said symbol generator also generates a lateral drift indicator that represents a lateral drift speed of the airplane, said lateral drift indicator being attached to said first symbol and varying in length in proportion to the lateral drift speed.

72. (new) The device of claim 68, wherein the device is arranged and adapted to transmit flight information for following the flight path to an autopilot that controls movement of the airplane.